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CHALCHIHUITL IN ANCIENT MEXICO¹

By ZELIA NUTTALL

The chronicle of Tezozomoc relates that when Ahuitzotl, the ruler of Mexico, extended his conquests southward, his forces had a decisive encounter (in A. D. 1497) with the united coast tribes, near Tehuantepec, and vanquished them. "The victors penetrated into the camp of the fugitives and sacked it. The elders and women came forth as supplicants and said: 'Valiant lords of Mexico, cease your fury, soften your hearts and pity these poor coast people and those of Tecuantepec, of Tutztecatl, and of Amaxtlan.'"

Upon this Ahuitzotl gave orders to cease the slaughter, and all sat on the ground in order to listen. Then Ahuitzotl said, "What are you saying? I shall bring it to pass that there shall be no more inhabitants on these coasts and that no one will be left alive." Then those from the coast answered: "Our lords, let us speak. We will pay you tribute of all that is produced and yielded on these coasts, which will be *chalchihuitl* of all kinds and shades, other small precious stones named *teoxihuitl* [lit., "the divine turquoise"] for inlaying in precious objects, and much gold, besides the most exquisite plumage to be found in the whole world, prepared skins of the ocelot, puma, and large coyotes, and various kinds of stones streaked with veins of different colors." (Chap. lxxvi.)

The above passage reveals how highly the Mexicans valued the chalchihuitl, since it figures foremost among the tempting prizes offered by the coast tribes. It also definitely proves that the stone was a product of the Pacific coast region.

¹ Read before the Anthropological Society of Washington, April 23, 1901.

Historical investigation shows that from the time of Ahuitzotl to that of Montezuma, a period of twenty-two years, the coast tribes actually paid all of the promised tribute and periodically sent "strings of chalchihuitl beads," besides gold and turquoises, to their conquerors. The famous Tribute Roll of Montezuma, a copy of which was sent by Cortés to Charles V, records not only the names of towns situated along the Pacific coast which contributed chalchihuitl with other products, but shows us that the same stone was also sent to the capital from other parts of the country.

The following extracts from Book XI, chap. viii, of the work of Friar Bernardino de Sahagun, in which the learned monk discusses the properties of the native fauna and flora, metals and stones, further demonstrate that chalchihuitl was a recognized natural product of Mexico:

Precious stones are not found in the beautiful polished and brilliant condition in which they are sold by venders. They are originally rough, without appearance of beauty, and are carried from the fields and villages. There are persons who know where precious stones grow because, wherever the latter are, they exhale, at dawn, a vapor like delicate smoke. Another sign indicates the place where precious stones are hidden, especially in the case of those called *chalchihuitls*. Wherever these are the grass which grows above is always green, for the reason that these stones continually send forth a cool and moist exhalation. Wherever this is the stones are to be found in which the chalchihuitls are formed. . . . There is a kind of stone called quetzal-chalchihuitl which is named thus because it is like the chalchihuitl and is very green. The good stones of this kind are without any spots and are transparent [translucent?] and very green. There are other stones named chalchihuitl which are not transparent and are green mixed with white. This kind is much used by the chieftains who string them and wear them around their wrists. They constitute a sign that the wearer is a nobleman. It is illicit for vassals to wear them. . . .

There is another stone belonging to the species of chalchihuitl, which is called *tlilaotic*, and is a mixture of black and green.

Besides the above mentioned stones there are other jasper stones of many kinds and colors. . . . Some of these are white as well as green and are therefore called *ixtacxhalchihuitl* [lit., "white chalchi-

huitl "] ; others have green veins with light blue or other colors mixed in with the white.

The fact that, in the Nahuatl language, the current name for lapidary in general was *chalchiuh iximatqui* (lit., "he who works the chalchihuitl") proves that there existed a native caste of skilled lapidaries whose highest attainment was the conversion of crude bits of the stone into the highly-prized beads and carved ornaments worn by the Mexican chieftains. It is interesting to find, in Sahagun, mention of the wearing of labrets and earrings of "false chalchihuitl" by ordinary people among the Otomis, a Mexican tribe.

Having gathered the above curious details concerning the knowledge and use of the stone amongst the ancient Mexicans, I was tempted to undertake the somewhat tedious and time-consuming task of localizing the various towns associated, in Montezuma's Tribute Roll, with the tributes of chalchihuitl. Many of these towns proved to have been situated in the ancient Mixtecapan, which comprised portions of the present states of Puebla, Guerrero, and Oaxaca, whilst others were situated in the state of Vera Cruz or in distant Chiapas, near the boundary of Guatemala. The accompanying outline map (figure 41) indicates the modern Mexican states which confine the localities associated with chalchihuitl in the Tribute Roll.

It was interesting to find how many of the ancient Mexican local names had remained unaltered to the present day, and it was easy to identify these and others, in the form of which slight alterations or abbreviations had taken place. Some names, however, have entirely disappeared, having doubtless been superseded by the names of saints which were bestowed upon all parishes by the Spanish missionaries. Local investigation would, in all likelihood, lead to the identification of a number of the places which I have not been able to trace on the modern maps consulted. I shall rely on my colleagues in Mexico, who have opportunities for doing so, to supply the missing information in course of time.

There is serious difficulty in the identification of a few of the ancient localities, due to the fact that the same names are frequently found applied to more than one place in the same or in a different state. In some cases the appearance, in the Tribute Roll, of a name, in a series of local names, affords a clue to its geographical situation, as towns are usually enumerated by districts. Rather than to make an identification which might prove to be

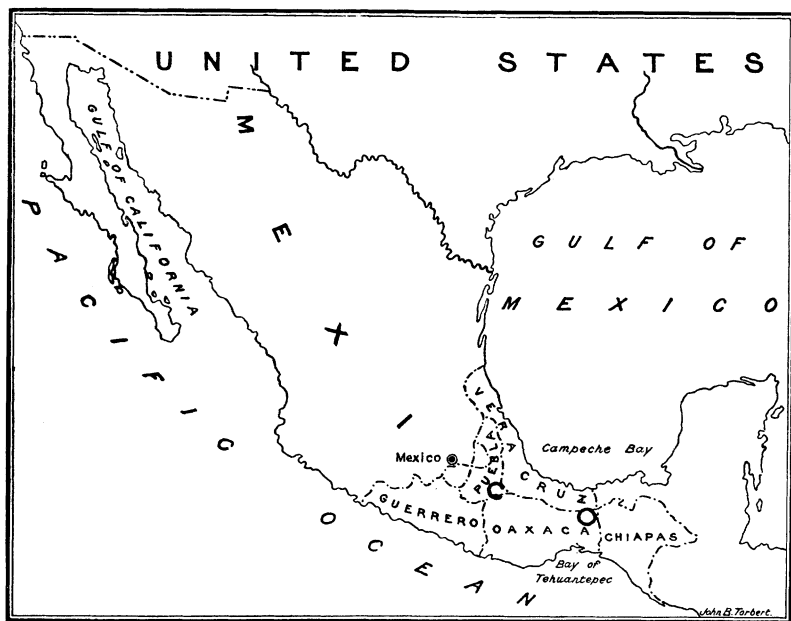


FIG. 41—Map defining the portions of ancient Mexico from which chalchihuitl was sent as tribute to Montezuma.

misleading, I have preferred either to omit entirely, or to so designate, all that appeared in the least doubtful. It should here be stated that, in making investigations, I referred to the various series of maps published by the Mexican government as well as to others published in the United States by the Bureau of American Republics and by Messrs Rand, McNally & Co. The index to the last mentioned proved a valuable aid in some cases.

I shall now present the list of towns enumerated in Monte-

zuma's Tribute Roll, with their names as they appear on modern maps and their localization in the actual states of Mexico. We shall begin with the localities situated in Chiapas, on the Pacific coast, near the frontier of Guatemala. Their inhabitants con-



FIG. 42—Map of the southern part of Chiapas, in which are indicated six of the nine towns enumerated in Montezuma's Tribute Roll as contributing chalchihuitl.

tinued the struggle against the Mexicans after the conquest of Tehuantepec, and Ahuizotl was obliged to send another expedition to subdue them. On yielding submission they too promised to supply their conquerors "forever with gold, emeralds, all kinds

of precious chalchihuitl, etc." (Tezozomoc, chap. lxxix.) At the time of Montezuma only two strings of chalchihuitl were exacted from them.

TRIBUTE: *Two strings of chalchihuitl beads.*

Tribute Roll	Modern maps
Xoconochco	Soconusco, State of Chiapas.
Ayotlan	(?) ¹
Coyoacan	(?)
Mapachtepec	Mapastepec, " " "
Maçatlan	Mazatan, " " "
Huitztlan	Huiztan, " " "
Acapetlatlan	Acapetahua, " " "
Huehuetlan	Huehuetan, " " "
Ochpaniztli	(?)

The exact geographical position of six of the above towns is shown on the map (figure 42), on which I have also indicated a small town, situated between Tuxtla and Simojovel, which bears the significant appellation of Chalchihuitan, lit., "The Land of Chalchihuitl."

Proceeding northward, we next examine the following lists of towns (figure 43) designated in the document as "situated in the hot lands."

TRIBUTE: *Four strings of chalchihuitl beads, three large pieces of chalchihuitl, three strings of chalchihuitl beads every six months.*

Tribute Roll	Modern maps
Tochtepec	Tuxtepec, Oaxaca.
Xayaco	Xayacatlan, Oaxaca.
Otlatitlan	Otatitlan, near frontier of Oaxaca and Vera Cruz.
Coçamaloapan	Cosamaloapan, Vera Cruz.
Mixtlan	Mixtla, Vera Cruz.
Michapan	Michi-apan, Oaxaca.
Ayotzintepc	(?)
Michatlan	(?)
Teotitlan	Teotitlan, Oaxaca.

¹ This term appears to be identical with Ayotecatl, which was destroyed by the Mexican conquerors and is described in the chronicle as being situated a day's march from Maçatlan in the above list.

Tribute Roll	Modern maps
Xicaltepec	Jicaltepec, Vera Cruz (?).
Oxitalan	(?)
Tzinacaoztoc	(?)
Tototepec	Tututepec, Oaxaca.
Chinantlan	Chinantilla, Oaxaca.
Ayoçinatepec	(?)



FIG. 43.—Map exhibiting the towns situated in Oaxaca, Guerrero, and Vera Cruz, which are associated with chalchihuitl in Montezuma's Tribute Roll.

Cuezcomatitlan	(?)
Puctlan	Pochutla, Oaxaca.
Teteutlan	Teteutlan, near Atlixco, Puebla (?).
Tlacotlal	Tlacolula, Oaxaca (?).
Toztlan	(?)
Yautlan	Yauhtepec, Oaxaca (?).
Ixmattlatlan	Matlatlan, Oaxaca.

TRIBUTE : *One string of chalchihuitl beads every six months.*

Tribute Roll	Modern maps
Tuchpan	Tuxpan, State of Vera Cruz.

Tribute Roll	Modern maps
Tlatiçapan.....(?)	
Cihuanteopan.....	Zihuateutla, State of Vera Cruz.
Papantla.....	Papantla, " " " "
Ocelotepec	Teocelo (?), " " " "
Miahuapa.....	Miahuapa, " " " "

TRIBUTE: *Five strings of chalchihuitl beads every six months.*

Tribute Roll	Modern maps
Tepecuacuilco.....	Tepecoacuil, Guerrero.
Chilapan.....	Chilapa " "
Ohuapa.....	(?)
Huitzoco.....	Huitzuc, on border of Guerrero and Morelos.
Tlachmalacac.....	(?)
Yoalan.....	(?)
Cocolan.....	Cocula, Guerrero.
Atenango.....	Atenango, " "
Chilcachapa.....	(?).
Teloloapan.....	Teloloapan, " "

It is interesting to note how near to one another the above towns are situated.

TRIBUTE: *Two strings of chalchihuitl beads every six months.*

Tribute Roll	Modern maps
Cuetlaxtlan.....	Cotastla, ¹ State of Vera Cruz.
Mictlanquauhtli.....	(?)
Tlalpanicytlan.....	(?)
Oxichan.....	(?)
Acozpa.....	(?)
Teociocan.....	(?)

The largest number of identified localities in any single state is in that of Puebla, of which an enlarged map is given (figure 44). The tribute included only two strings of chalchihuitl beads; yet if one of these strings constituted a necklace, the number of beads may have been over one hundred, as in the necklaces described in the lists of presents sent by Cortés to Charles V.

¹ Cotastla is now surrounded by towns bearing Spanish names, such as Mala Caterina, Obispo, San Francisco, Aurora, San Juan, etc. An examination of old documents might lead to the discovery of the ancient names of some of these towns.

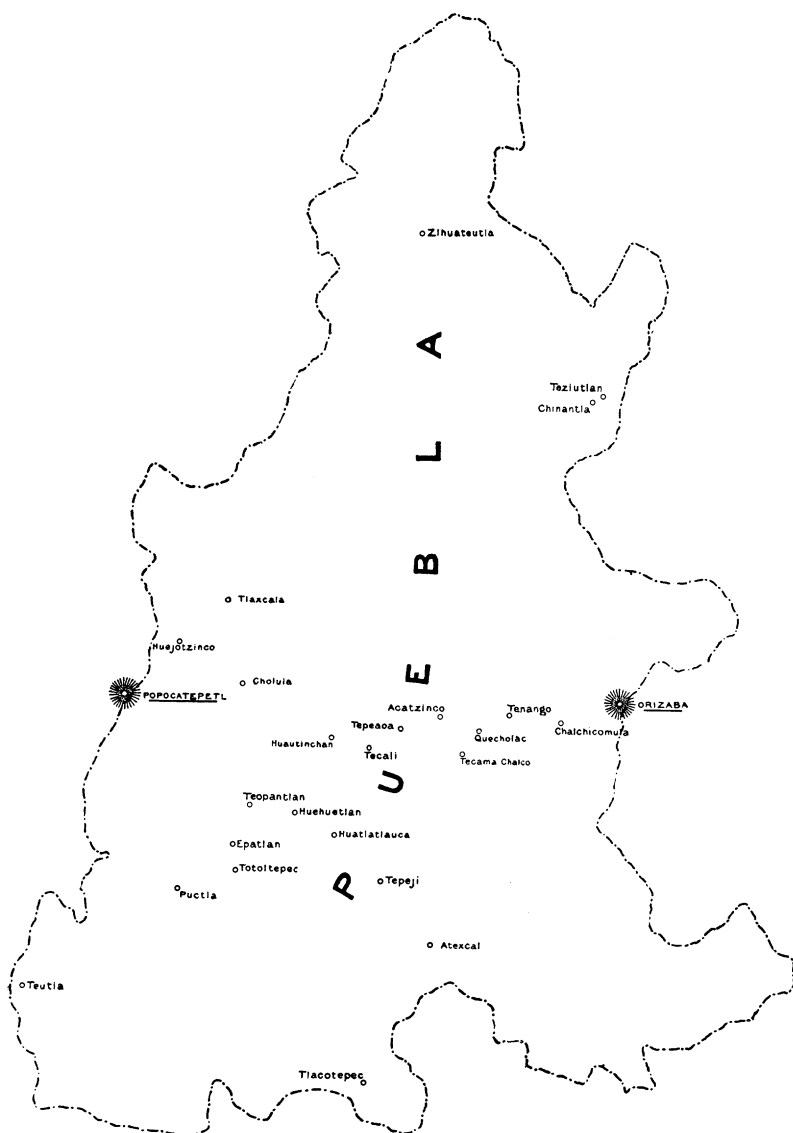


FIG. 44—Map of the state of Puebla, exhibiting the names of twenty-three towns associated with chalchihuitl in Montezuma's Tribute Roll.

Tribute Roll	Modern maps	
Tepeacac	Tepeaca,	Puebla.
Quechulac	Quecholac,	"
Tecama Chalco	Tecama Chalco,	"
Acatzincó ¹	Acatzincó,	"
Tecalco	Tecali,	"
Icçochinanco	(?)	
Quauhtinchan	Huauhtinchan,	"
Chictlan	(?)	
Quatlatlah	Huatlatlauca,	"
Tepexic	Tepeji,	"
Itzucan	Izucar,	"
Quauhquecholan	(?)	"
Teonochtitlan	(?)	
Teopantlan	Teopantlan,	"
Huehuetla	Huehuetlan,	"
Atezcahuacan	Atexcal,	"
Oztotlapechco	(?)	
Chiltepintla	(?)	
Nacochtlan	(?)	
Epatlan	Epatlan,	"
Coatzinco	(?)	
Tetenango	Tenango,	"
Tlaxcaltecatl	Tlaxcala,	"
Cholulteca	Cholula,	"
Huexotzincatl	Huejotzinco,	"

The question naturally presents itself here whether, by following the indications conveyed by the foregoing documentary evidence, geologists may not be able, in course of time, to find in Mexico the chalchihuitl *in situ*. With a view to furthering so desirable an end, I subjoin a list of Mexican localities the names of which incorporate the word chalchihuitl.

Chalchihucuecan	Ancient name given to that portion of the coast adjoining Vera Cruz where the Spanish landed.
Chalchicomulan	Town in the state of Puebla.

¹ The town of Chalchicomula is situated near Acatzincó, thus the word *chalchihuitl* is found to occur twice within the region around Tecama Chalco and Acatzincó.

Techachalco.....	Locality southwest of Chalchicomulan, district of Tehuacan.
Tecama Chalco	Town in the state of Puebla.
Chalco	Name of lagoon and town of same name. According to Ramirez the name was formed from "Chalchihuitl."
Tlaca Chalco and Coatepec-Chalco..	Two localities situated between Chalco and Texcoco, state of Mexico.
Chalchihuhapan	Town in southwest part of the state of Puebla. ¹
Chalcatongo.....	Locality south of Tlaxiaco, state of Oaxaca.
Chalchiguitan ..	Town south of Simojovel, state of Chiapas.
Chalmita and Chalma	Localities, state of Mexico, district of Tenancingo.
Chalchijapa.....	Name of a river a tributary of which flows from the south into Rio Coatzacoalco, south of the state of Vera Cruz. This name may have reference to the color of its water only (?).
Sierra de Chalchihuites.....	Name of a small range of mountains running north and south; district of Sombrerete, state of Zacatecas.
Chalchihuites.....	Name of a mining town at the northern extremity of the above range. Contains silver and zinc mines.

The name Chalchihuites given to a whole range of mountains and to a mining town in Zacatecas claims attention.

The actual existence of towns in regions which anciently paid tribute of chalchihuitl beads to Montezuma, and of districts whose names incorporate the word chalchihuitl, undoubtedly constitutes

¹Sahagun (Book c, chap. xxix) describes the house or oratory of Quetzalcoatl which was named Chalchihuhapan. This edifice was situated in the middle of a great river which flowed toward the town of Tula and there "the god had his bath-houses."

a most valuable indication which deserves serious consideration by those interested in the possibility of finding jadeite in place. At the same time it must be admitted that, on the whole, the collective indications are vague and unsatisfactory, especially when it is remembered that, in the Tribute Roll, the towns which sent chalchihuitl beads also sent other and varied tribute; that they are recorded collectively, and extend over a vast area of territory.

In two particular cases, however, the indications seem clear and are concentrated upon comparatively restricted districts. One of these comprises the compact group of six towns situated in the northern part of the state of Guerrero; the second consists of that portion of Chiapas in which I have located seven of the nine towns mentioned in the Tribute Roll. As documentary evidence, moreover, establishes the fact that chalchihuitl was a recognized product of the hot lands along the Pacific coast, and as Chiapas actually contains a locality designated as "The Land of Chalchihuitl," it seems but reasonable to regard the latter as the most promising field of investigation, not only for jadeite but also for gold and turquoise mines.

It is with the hope that they may be an aid and guide to future geological and mineralogical research that I submit the present communication and the foregoing notes collected during a prolonged study of documents relating to ancient Mexico.